

Ergonomics Training for Nursing Home Workers

Workers Manual

TABLE OF CONTENTS	Page
Agenda	2
Objectives	3
Motrin Ad	4
What is Ergonomics	5
Injuries Non-Clinical Staff	6
Injuries Clinical Staff	7
What is Musculoskeletal Disorder?	8
Diagram of MSDs	9
OSHA Press Release	10-11
Mechanics of Lifting	12
Risk Factors for CTI	13
Risk Factors for Acute Injury	14
Clinical Staff Ergonomic Job Analysis	15
The Ergonomic Risk Factors -Clinical	16
The Solutions	17
Non-Clinical Staff Ergonomic Job Analysis	18
The Ergonomic Risk Factors – Non-Clinical	19
The Solutions	20
Checklist for Computer Workstation	21-22
Blank Pages for Notes	23-24

Agenda

1. Introduction, Training Overview

2. What is Ergonomics?

3. Musculoskeletal Disorders

a. Where Does Your Body Hurt?

b. Why Does it Hurt?

4. What Makes it Hurt?

a. Risk Factors

b. Ergonomic Job Analysis

c. How Can Jobs Be safer?

5. Evaluation

This material was produced under grant number SH-22314-11-60-F-25 from the Occupational Safety and Health Administration, U.S. Department of Labor. It does not necessarily reflect the views or policies of the U.S. Department of Labor, nor does mention of trade names, commercial products, or

OBJECTIVES

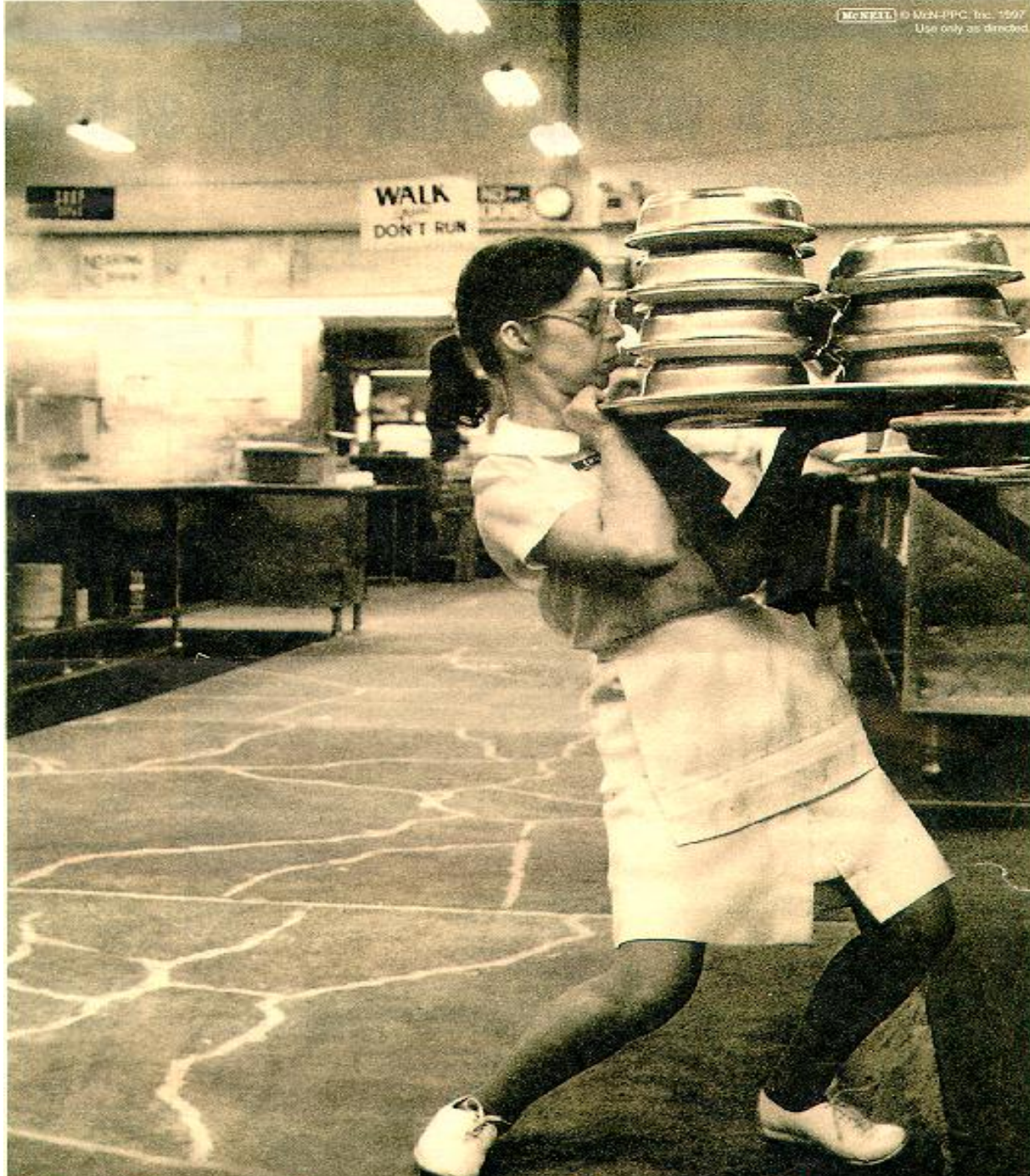
The objectives of this training are to:

1. Define and share an understanding of ergonomics in the workplace with participants
2. Help participants recognize that there is a wide range of musculoskeletal disorders, a mechanism for injury resulting from cumulative trauma
3. Understand the general risk factors that employees can be exposed to in the workplace that can lead to cumulative trauma
4. Introduce ergonomic hazard analysis as a skill and piece of greater effort to improve the health of the work environment.

Employees who complete this training will be able to:

1. Define and share an understanding of ergonomics in the workplace
2. Describe what musculoskeletal disorders are
3. Recognize general risk factors for cumulative trauma
4. Make a cursory ergonomic job analysis of their own work environment
5. Apply knowledge to contribute to a healthier workplace through ergonomic improvement

Ergonomics Training for Nursing Home Employees



Motrin spoken here.

From the most prescribed name in the history of pain relief comes Motrin IB. Nothing's proven to work better on headache and muscle pain. Yet it's gentler on your stomach than aspirin.

Motrin IB ibuprofen Prescription **Proven Power**

McNEIL-PPC, Inc. 1997
Use only as directed.

What is Ergonomics?

Ergonomics refers to changing the job, not the worker: “the science and the art of fitting the job and the workplace to workers’ needs, to take advantage of the workers’ strengths, capabilities and individual tendencies, and to recognize natural individual limitations in order to prevent injury.”

Key Points to Remember

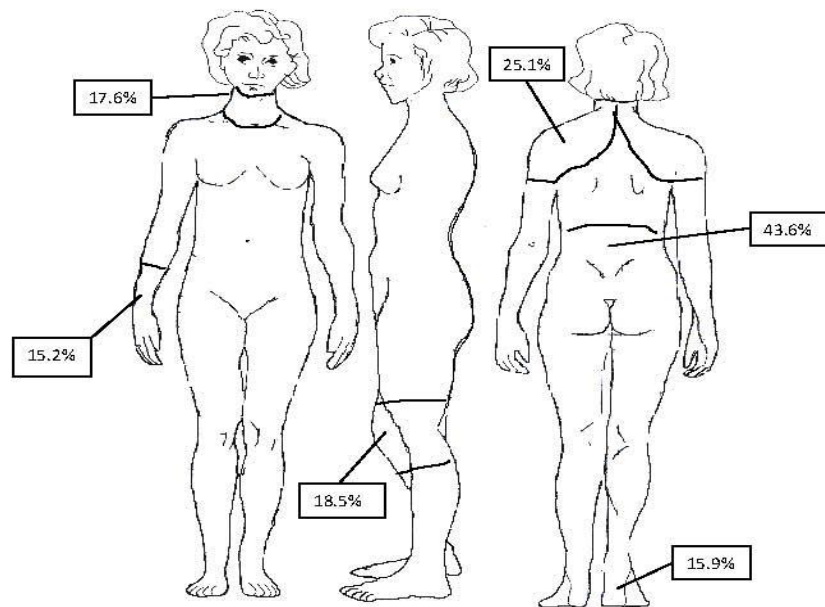
- Fix the job, not the worker.
- Use your brain, not your back.
- Work smarter, not harder.

Greek root:

The word “ergonomics” is from Greek:

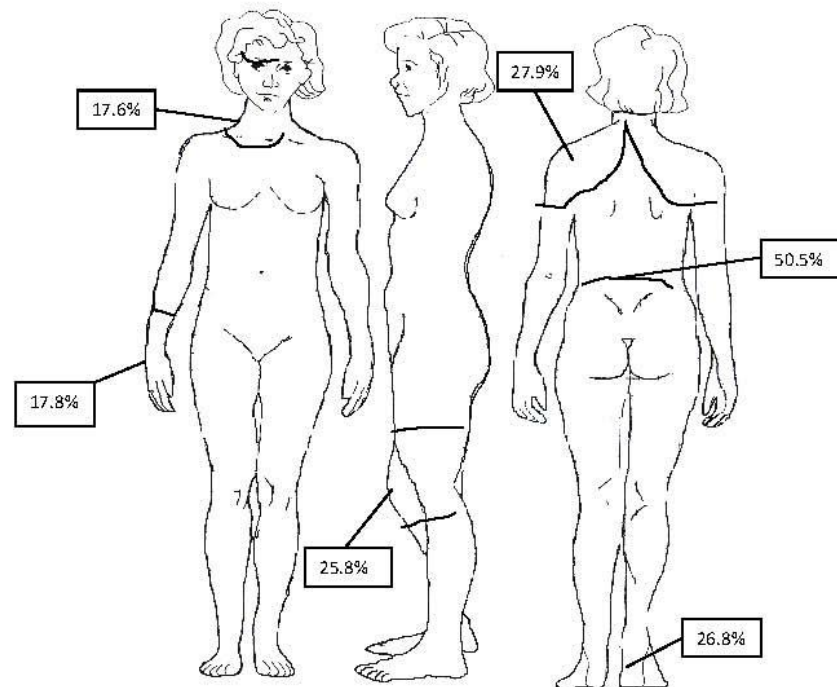
- “ergo” means “work,”
- “nomics” means “laws pertaining to, or measure.”
- Ergonomics is “the laws pertaining to work, the measure of work.”

Injuries Non-Clinical Staff



UMass Lowell survey of nursing home personnel: Percent of non-clinical staff survey respondents reporting pain in a location of the body

Injuries Clinical Staff



UMass Lowell survey of nursing home personnel: Percent of clinical staff survey respondents reporting pain in a location of the body

What Is Musculoskeletal Disorder (MSDs)?

- **Answer: The pain that you feel is often an indication of an ergonomic disorder**
- **MSD** is the language used by OSHA when it issued an Ergonomic Standard in November 2000 under the Clinton Administration. It was repealed by the Bush Administration in March 2001.
- **Repetitive Strain Injury (RSIs):** is used as a general term for a wide range of injuries to the hands, wrists, arms, elbows, shoulders, neck and even the back, the result from repetitive work.
- **Cumulative Trauma Disorders (CTDs):** is a condition where a part of the body is injured by repeatedly overusing or causing trauma to that body part.
- **Occupational Safety & Health (OSHA)** has a new emphasis program on nursing homes beginning in October, 2011. **(See Attached Press Release)**
http://osha.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=21192

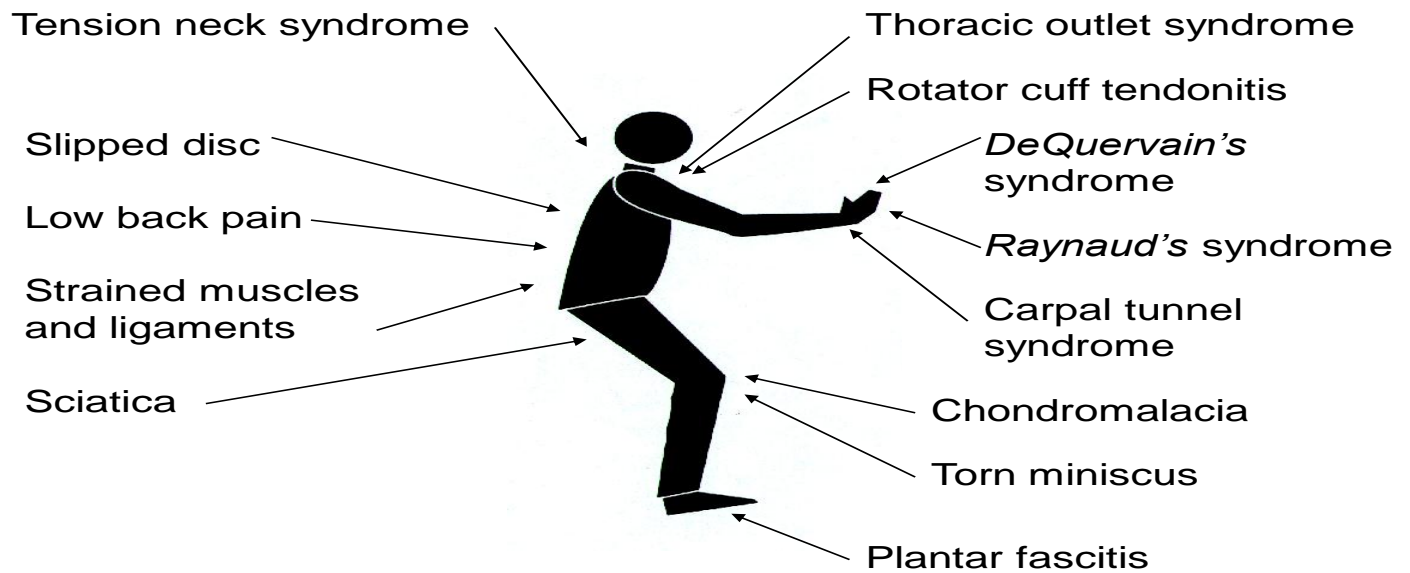
The pain workers feel daily turns into MSDs gradually.

- First there's discomfort, then pain, then the pain turns into symptoms, syndromes or a diagnosed disorder, which can result in permanent disability.
- "Pain" is a term and a feeling which is subjective. Other early warnings include burning, cramping, numbness, swelling, tingling, weakness, or fatigue.

Important Facts of Musculoskeletal Disorders

- They affect your **musculoskeletal system** - your muscles, nerves, tendons, ligaments, joints, cartilage and spinal discs.
- They are **cumulative** - they happen gradually, as opposed to accidents.
- They are **chronic** - the effects last a long time.

Musculoskeletal Disorders (MSDs)



Statement

U.S. Department of Labor



OSHA

Occupational Safety & Health Administration

- Nov. 9, 2011 News Release
- The rate of injury with days away from work for nursing aides, orderlies and attendants rose 7% to 489 per 10,000 workers (national average is 112)
- The rate of musculoskeletal disorder cases with days away from work for nursing aides increased 10% to a rate of 249 cases per 10,000 workers.

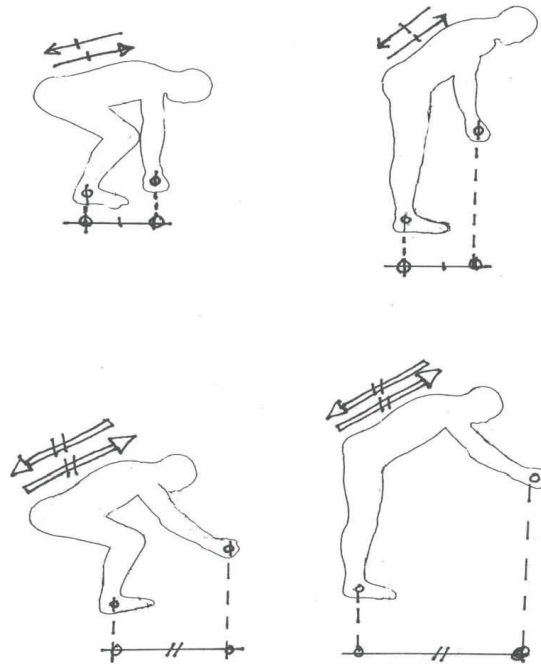
OSHA Director Dr. David Michaels:

"The rates of injuries and illnesses among hospital and health care workers underscore OSHA's concern about the safety and health of these workers. OSHA is responding by launching, in the next few months, a **National Emphasis Program on Nursing Home and Residential Care Facilities.** Through this initiative, **we will increase our inspections of these facilities, focusing on back injuries from resident handling or lifting patients;** exposure to bloodborne pathogens and other infectious diseases; workplace violence; and slips, trips and falls.

"The workers that care for our loved ones deserve a safe workplace and OSHA is diligently working to make this happen."

Biomechanical Diagram

The Biomechanics of Lifting

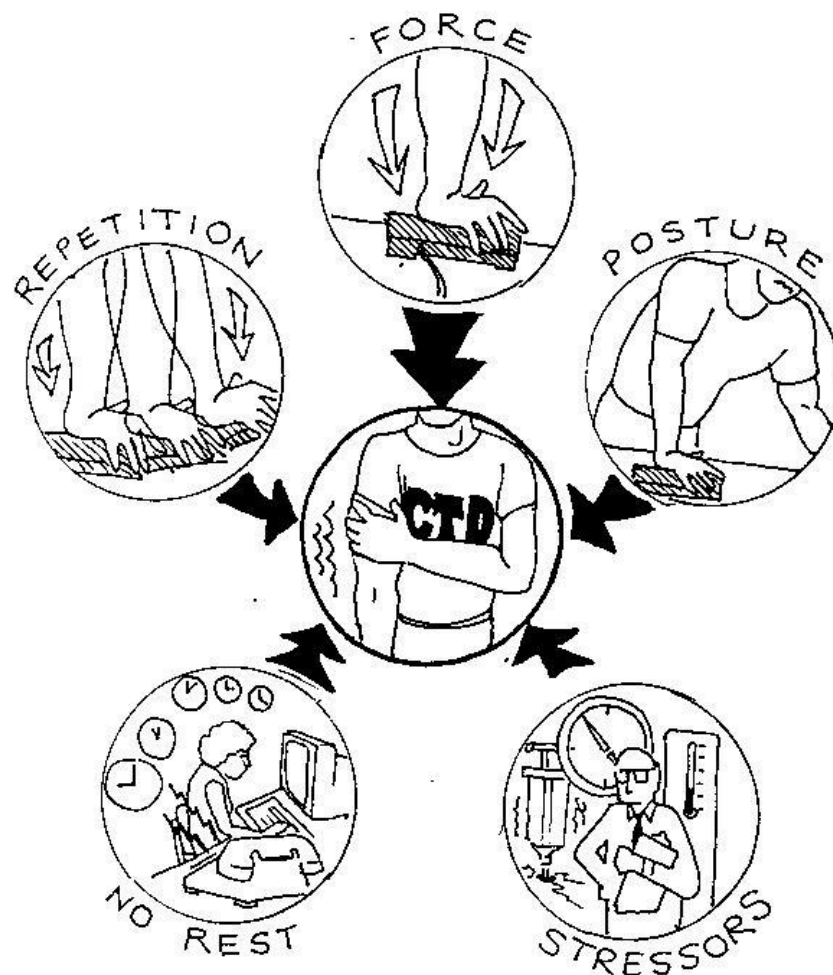


The farther from your body that you lift an object, the harder your muscles have to work to support the lift.

Lift close to your body!

Risk Factors for Cumulative Trauma Type Injury

- Awkward Posture, Static Posture
- Repetition
- High Force
- Contact Stress
- Cold Temperature
- Fatigue, Overwork Job Stress, Mental Fatigue



The American Nurse's Association (ANA) puts exposure for acute injury events into 3 recognizable categories:

1. On -The-Job Activities

- Reaching and lifting loads far from the body
- Lifting heavy loads (greater than 40-50 pounds under ideal conditions)
- Twisting while lifting
- Reaching low or high to begin a lift
- Moving a load a great distance
- Frequent lifting (more than 12 lifts a shift)
- Unassisted lifting
- Awkward posture of caregiver

2. Events Difficult Control

- Unexpected changes during the lift (e.g., combative patient, failing patient)
- Excessive pushing or pulling forces required to accomplish task
- Lack of ability to grasp the patient securely (no handles)
- Totally dependent, unpredictable, or combative patient
- Patient's inability to understand
- Patient's special medical conditions (burns, stroke)

3. Usually Requiring Assistance

- Transferring patient from bathtub to wheelchair, wheelchair to shower/commode chair, wheelchair to bed, bed to stretcher, and vice versa
- Lifting a patient from the floor
- Weighing a patient
- Bathing a patient in bed, in a shower chair, or on a shower trolley or stretcher
- Undressing/dressing a patient, including applying antiembolism stockings
- Repositioning patient in bed from side to side or to the head of the bed
- Repositioning patient in geriatric chair or wheelchair
- Making an occupied bed
- Feeding a bed-ridden patient

- Changing absorbent pad when bed is occupied

Activity: Job Hazard Analysis: Clinical Staff

You will choose a job that causes discomfort, pain or injury and look at ways to change the job to make it safer. You will be working in a small group of 3-5 workers.

Step 1. Choose a job that has caused pain or injury for you or others. In the space below, draw a diagram of the task. You can include the equipment you use, the workers, and the resident if you want.

THE JOB

What task are you analyzing? _____

Draw the task...including the equipment, workers and resident if necessary.

THE ERGONOMIC RISK FACTORS

Step 2: Check all the risk factors for MSDs that apply to the job. Work with your group to decide.

AWKWARD or STATIC POSTURES

- ☐ Twisting or bending body to the side
- ☐ Holding arms at or above shoulders
- ☐ Bending or twisting neck
- ☐ Leaning over or kneeling
- ☐ Using equipment in difficult positions
- ☐ Working in small tight spaces
- ☐ Reaching low or high to begin a lift
- ☐ Working in one position for long periods
- ☐ Reaching and lifting loads far from the body

REPETITION

- ☐ Frequent forceful or awkward motions

FORCE

- ☐ Lifting or moving or catching more than 50 lbs without help
- ☐ Lifting by yourself without equipment
- ☐ Lifting more than 6 lbs with one hand
- ☐ Frequently lifting (more than 12 times per shift)
- ☐ Using poorly maintained equipment for the job
- ☐ Lack of ability to grasp the patient securely (no handles)
- ☐ Totally dependent, unpredictable, or combative patient
- ☐ Excessive pushing or pulling

EXTREME TEMPERATURES

- ☐ Working with excessive exposure to cold or heat

WORK STRESS – mental demand or physical fatigue

- ☐ Time pressures
- ☐ Excessive overtime
- ☐ Not enough rest breaks
- ☐ Patient's inability to understand, or special conditions

CONTACT STRESS

- ☐ Sustained pressure to a body part against a surface or edge

OTHER: _____

THE SOLUTIONS

Step 3: For each ergonomic risk factor checked on the previous page, identify how the job can be changed to reduce the ergonomic the risk factor.

RISK FACTOR	JOB CHANGE

Activity: Job Hazard Analysis: Non-Clinical Staff

You will choose a job that causes discomfort, pain or injury and look at ways to change the job to make it safer. You will be working in a small group of 3-5 workers.

Step 1. Choose a job that has caused pain or injury for you or others. In the space below, draw a diagram of the task. You can include the equipment you use, the workers, and the resident if you want.

THE JOB

What task are you analyzing? _____

Draw the task...including the equipment, workers and resident if necessary.

Step 2: Check all the risk factors for MSDs that apply to the job. Work with your group to decide.

THE ERGONOMIC RISK FACTORS

AWKWARD or STATIC POSTURES

- ☐ Twisting or bending body to the side
- ☐ Holding arms at or above shoulders
- ☐ Bending or twisting neck
- ☐ Leaning over or kneeling
- ☐ Using equipment in difficult positions
- ☐ Working in small tight spaces
- ☐ Reaching low or high to begin a lift
- ☐ Working in one position for long periods
- ☐ Reaching and lifting loads far from the body

REPETITION

- ☐ Frequent forceful or awkward motions

FORCE

- ☐ Lifting or moving more than 50 lbs without help
- ☐ Lifting unassisted
- ☐ Lifting more than 6 lbs with one hand
- ☐ Frequently lifting (more than 12 times per shift)
- ☐ Using poorly maintained equipment for the job
- ☐ Excessive pushing or pulling

EXTREME TEMPERATURES

- ☐ Working with excessive exposure to cold or heat

WORK STRESS – mental demand or physical fatigue

- ☐ Time pressures
- ☐ Excessive overtime
- ☐ Not enough rest breaks

CONTACT STRESS

- ☐ Sustained pressure to a body part against a surface or edge

OTHER: _____

THE SOLUTIONS

Step 3: For each ergonomic risk factor checked on the previous page, identify how the job can be changed to reduce the ergonomic the risk factor.

RISK FACTOR	JOB CHANGE

--	--

A CHECKLIST OF ERGONOMIC RISK FACTORS FOR THE COMPUTER WORKSTATION

Chair	
	Do you have lower back support? Y/N
	Does it work effectively? Y/N
	Is the backrest up to shoulder height? Y/N
	Do you have armrests? Y/N Can you adjust armrest height? Y/N
	Do your armrests present a barrier to free use of your arms? Y/N
	Is there pressure on the back of your legs against the edge of your seat? (Y = too long/no waterfall) Y/N
	Is the seat width OK? Y/N
	Is the seat depth OK? Y/N
	Do you keep your feet flat on floor? Y/N
	If no, then what do you do (see notes)
<i>Sitting posture notes:</i>	
Desk	
	Is there enough room for your legs under the desk? Y/N
	Is there enough room for your legs under the desk and keyboard? Y/N
	Can you sit with your thighs parallel to the ground? Y/N
	Can you sit with your thighs tilted down to the floor? Y/N
	Desk surface height 1) from floor _____ inches 2) from elbow (+/-) _____ inches
	Do you have to reach for: Phone/Document/Supplies/etc. (notes below)?
	<i>Desk notes:</i>
Monitor	
	How far is the monitor from you? _____ inches from eyes:
	How far down (or up) do you have to look? approximate angle from eyeline:
	Are you NOT able to adjust the monitor's location? Y/N
	Do you have to turn your head to look at the monitor? Y/N
	Do you experience glare from a light source? Y/N
	Is the glare from windows? Y/N

Ergonomics Training for Nursing Home Employees

	Do you NOT have a task light?	Y/N
	If Y, is the quality adequate?	Y/N
	Do you use computer glasses, bifocals, or progressive lenses?	Y/N
	Do you use bifocals or progressive glasses?	Y/N
	Are you NOT able to use a document holder?	Y/N
	Monitor notes:	
Keyboard		
	What type of keyboard tray do you have?	Circle one: Normal QWERTY Microsoft Natural Specialized Other
	Is there a keyboard tray?	Y/N
	Is it articulating?	Y/N
	Do your wrists extend or flex at the keyboard?	Y/N
	Do your wrists deviate to the side at the keyboard?	Y/N
	Do you have a wrist pad?	Y/N
	Do you tend to rest your wrists?	Y/N
	Keyboard notes:	
Pointing device		
	Input device type:	Circle one: Mouse Joystick Roller ball other
	Where is the pointing device located relative to your keyboard?	Circle one: In front Behind To the left To the right
	Do you feel that the pointing device fits your hand?	Y/N
	Do you know how to set the settings of you pointing device?	Y/N
	Do you have a wrist pad?	Y/N
	Do you tend to rest your wrists?	Y/N
	Do you comfortably rest your arms at your side while pointing?	Y/N
	Do your wrists extend or flex at the pointing device?	Y/N
	Do your wrists deviate to the side when using the pointing device?	Y/N
	Do you have to hold your fingers in the air while pointing?	Y/N
	Do you continuously have to clench the pointing device?	Y/N
	Are your wrists or forearms constantly under pressure from the edge or	

	surface of the desk?	Y/N
	<i>Pointing device notes:</i>	

NOTES

NOTES

Resources

1. OSHA Worker Rights

2. Job Hazard Analysis Tool

3.

Workers' rights under the OSH Act

Workers are entitled to working conditions that do not pose a risk of serious harm. To help assure a safe and healthful workplace, OSHA also provides workers with the right to:

- Ask OSHA to inspect their workplace;
- Use their rights under the law without retaliation and discrimination;
- Receive information and training about hazards, methods to prevent harm, and the OSHA standards that apply to their workplace. The training must be in a language you can understand;
- Get copies of test results done to find hazards in the workplace;
- Review records of work-related injuries and illnesses;
- Get copies of their medical records;

OSHA and State Plan Contacts in Region 1 New England	
Massachusetts	Rhode Island
North Boston Area Office Shattuck Office Center 138 River Road, Suite 102 Andover, MA 01810 (978)837-4460	Providence Area Office Federal Office Building 380 Westminster Mall, Room 543 Providence, Rhode Island 02903 (401) 528-4669
South Boston Area Office 639 Granite Street, 4th Floor Braintree, Massachusetts 02184 (617) 565-6924	<u>Maine</u> Bangor District Office 382 Harlow Street Bangor, ME 04401 (207) 941-8177
Springfield Area Office 1441 Main Street, Room 550 Springfield, Massachusetts 01103-1493 (413) 785-0123	Augusta Area Office E.S. Muskie Federal Bldg 40 Western Ave., Room G-26 Augusta, ME 04330 (207) 626-9160
Connecticut	New Hampshire
Bridgeport Area Office Clark Building 1057 Broad Street, 4th Floor Bridgeport, Connecticut 06604 (203) 579-5581	Concord Area Office J.C. Cleveland Federal Bldg 53 Pleasant Street, Room 3901 Concord, New Hampshire 03301 (603) 225-1629
Hartford Area Office Federal Building 450 Main Street, Room 613 Hartford, Connecticut 06103 (860) 240-3152	<u>Vermont - VOSHA</u> Vermont Department of Labor 5 Green Mountain Drive P O Box 488 Montpelier VT. 05601-0488 Robert McLeod , Manager (802) 828-5084

Ergonomic Job Analysis

Job Hazard Analysis: A Tool for Safer Jobs

The method you used in your activity is a tool that can be used to analyze the causes and solutions of job hazards.

Step 1. Choose a job that has caused pain or injury for you or others. In the space below, draw a diagram of the task. You can include the equipment you use, the workers, and the resident if you want.

THE JOB

What task are you analyzing? _____

Draw the task...including the equipment, workers and resident if necessary.

THE ERGONOMIC RISK FACTORS FOR CLINICAL STAFF

Step 2: Check all the risk factors for MSDs that apply to the job. Work with your group to decide.

AWKWARD or STATIC POSTURES

- ☐ Twisting or bending body to the side
- ☐ Holding arms at or above shoulders
- ☐ Bending or twisting neck
- ☐ Leaning over or kneeling
- ☐ Using equipment in difficult positions
- ☐ Working in small tight spaces
- ☐ Reaching low or high to begin a lift
- ☐ Working in one position for long periods
- ☐ Reaching and lifting loads far from the body

REPETITION

- ☐ Frequent forceful or awkward motions

FORCE

- ☐ Lifting or moving or catching more than 50 lbs without help
- ☐ Lifting by yourself without equipment
- ☐ Lifting more than 6 lbs with one hand
- ☐ Frequently lifting (more than 12 times per shift)
- ☐ Using poorly maintained equipment for the job
- ☐ Lack of ability to grasp the patient securely (no handles)
- ☐ Totally dependent, unpredictable, or combative patient
- ☐ Excessive pushing or pulling

EXTREME TEMPERATURES

- ☐ Working with excessive exposure to cold or heat

WORK STRESS – mental demand or physical fatigue

- ☐ Time pressures
- ☐ Excessive overtime
- ☐ Not enough rest breaks
- ☐ Patient's inability to understand, or special conditions

CONTACT STRESS

- ☐ Sustained pressure to a body part against a surface or edge

OTHER: _____

THE ERGONOMIC RISK FACTORS for NON-CLINICAL STAFF

AWKWARD or STATIC POSTURES

- ☐ Twisting or bending body to the side
- ☐ Holding arms at or above shoulders
- ☐ Bending or twisting neck
- ☐ Leaning over or kneeling
- ☐ Using equipment in difficult positions
- ☐ Working in small tight spaces
- ☐ Reaching low or high to begin a lift
- ☐ Working in one position for long periods
- ☐ Reaching and lifting loads far from the body

REPETITION

- ☐ Frequent forceful or awkward motions

FORCE

- ☐ Lifting or moving more than 50 lbs without help
- ☐ Lifting unassisted
- ☐ Lifting more than 6 lbs with one hand
- ☐ Frequently lifting (more than 12 times per shift)
- ☐ Using poorly maintained equipment for the job
- ☐ Excessive pushing or pulling

EXTREME TEMPERATURES

- ☐ Working with excessive exposure to cold or heat

WORK STRESS – mental demand or physical fatigue

- ☐ Excessive production pressures
- ☐ Excessive overtime
- ☐ Not enough rest breaks

CONTACT STRESS

- ☐ Sustained pressure to a body part against a surface or edge

OTHER: _____

THE SOLUTIONS

Step 3: For each ergonomic risk factor checked on the previous page, identify how the job can be changed to reduce the ergonomic the risk factor.

RISK FACTOR	JOB CHANGE

Step 3: For each ergonomic risk factor checked on the previous page, identify how the job can be changed to reduce the ergonomic the risk factor.

RISK FACTOR	JOB CHANGE